

## ABSTRACT

The present invention is a method for producing a single crystal with pulling the single crystal from a raw material melt in a chamber by CZ method, wherein when growing the single crystal, where a pulling rate is defined as  $V$  and a temperature gradient of the crystal is defined as  $G$  during growing the single crystal, the temperature gradient  $G$  of the crystal is controlled by changing at least two or more of pulling ~~conditions including a diameter of the straight body of the single crystal, a rotation rate of the single crystal during pulling the single crystal, a flow rate of an inert gas introduced into the chamber, a position of a heater heating the raw material melt and a distance between the melt surface of the raw material melt and a heat insulating member provided in the chamber so as to oppose to the surface of the raw material melt, thereby  $V/G$  which is a ratio of the pulling rate  $V$  and the temperature gradient  $G$  of the crystal is controlled so that a single crystal including a desired defect region is grown~~conditions. Thereby, there is provided a method for producing a single crystal in which when the single crystal is grown by CZ method,  $V/G$  can be controlled without lowering a pulling rate  $V$ , and thus the single crystal including a desired defect region can be produced effectively for a short time.